

and countersunk in a day of nine hours, making a total of 2000 holes per day. The most important part, however, is the fact that the method insures that the centering is done with reference to the *hardened* spider arms, thus insuring that the amount of metal removed in grinding will be practically equal at all points.

Indexing Jigs mounted on Trunnions. — A box drill jig for use in drilling, reaming, tapping, chamfering, and spot-facing holes in automobile rear-axle housings is illustrated in Fig. 13.



Fig. 14. Another Indexing Drill Jig of the Trunnion Type

It will be seen from the illustration that the jig swings on trunnions fitted in the cradle or base, and that the base is equipped with index-pins for locating the jig in any of five positions. There is an index-pin at each side of the base and these pins are operated simultaneously by a single hand-lever.

The rear-axle housing is put in the jig through an

opening covered by a hinged and latched lid; and the work is held in place by means of hardened steel plugs which insure positive location. All parts of the jig which are subject to wear are hardened and ground to size, thus greatly reducing the possibility of inaccuracy of the work as a result of wear. The weight of the jig is noo pounds and it is equipped with rollers carried
iiJ